



Billing Code: 4150-31

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

Findings of Research Misconduct

AGENCY: Office of the Secretary, HHS

ACTION: Notice.

SUMMARY: Findings of research misconduct have been made against Deepti Malhotra, Ph.D. (Respondent), former Doctoral Student and Postdoctoral Fellow, Department of Environmental Health Sciences, Johns Hopkins Bloomberg School of Public Health (JHSPH). Dr. Malhotra engaged in research misconduct in research supported by U.S. Public Health Service (PHS) funds, specifically National Heart, Lung, and Blood Institute (NHLBI), National Institutes of Health (NIH), grants R01 HL081205, P50 HL084945, P50 HL084948-01, U01 HL105569-03, P50 HL107169-01, R01 HL066554-09, and R03 HL096931-02; National Institute of Environmental Health Sciences (NIEHS), NIH, grants P50 ES015903, P01 ES018176-01, and P30 ES003891-25; National Cancer Institute (NCI), NIH, grant P50 CA058184-18; and National Institute for Research Resources (NCRR), NIH, grant UL1 RR025005-02. The administrative actions, including debarment for a period of four (4) years, were implemented beginning on October 1, 2019, and are detailed below.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION: Notice is hereby given that the Office of Research Integrity (ORI) has taken final action in the following case:

Deepti Malhotra, Ph.D., Johns Hopkins Bloomberg School of Public Health: Based on the report of an investigation conducted by JHSPH and analysis conducted by ORI in its oversight review, ORI found that Dr. Deepti Malhotra, former Doctoral Student and Postdoctoral Fellow, Department of Environmental Health Sciences, JHSPH, engaged in research misconduct in research supported by PHS funds, specifically NHLBI, NIH, grants R01 HL081205, P50 HL084945, P50 HL084948-01, U01 HL105569-03, P50 HL107169-01, R01 HL066554-09, and R03 HL096931-02; NIEHS, NIH, grants P50 ES015903, P01 ES018176-01, and P30 ES003891-25; NCI, NIH, grant P50 CA058184-18; and NCRR, NIH, grant UL1 RR025005-02. NCI, NIH, grant R01 CA122737-01A2.

ORI found that Respondent engaged in research misconduct by knowingly, intentionally, and/or recklessly falsifying and/or fabricating data included in the following four (4) published papers and her Ph.D. Thesis:

- *Am J Respir Crit Care Med.* 2008;178(6):592-604 (hereafter referred to as “AJRCCM 2008”). Retracted in: *Am J Respir Crit Care Med.* 2016 Feb 1;193(3):344.
- *Am J Respir Crit Care Med.* 2009;180(12):1196-1207 (hereafter referred to as “AJRCCM 2009”). Retracted in: *Am J Respir Crit Care Med.* 2016 Feb 1;193(3):344.

- *J Clin Invest.* 2011;121(11):4289-4302 (hereafter referred to as “*JCI* 2011”). Retracted in:
J Clin Invest. 2014 Dec;124(12):5521.
- *PLoS Comput Biol.* 2012;8(7):e1002597 (hereafter referred to as “*PLoS Comput Biol.* 2012”).
- Malhotra D. “Transcription Factor Nuclear Factor (Erythroid-Derived 2) Receptor 2 (Nrf2), A Master Regulator of Environmental Stress Response, Is A Modifier Of Chronic Obstructive Pulmonary Disease (COPD).” A dissertation submitted to the Johns Hopkins University in conformity with the requirements for the degree of Doctor of Philosophy, August 2010 (hereafter referred to as the “Ph.D. Thesis”).

Respondent knowingly, intentionally, and/or recklessly falsified and/or fabricated Western blot data for protein expression in cultured cell lines and/or alveolar macrophages of patients with chronic obstructive pulmonary disease (COPD) by trimming and manipulating Western blot images to disguise their origin or by reversing negative DNA gel images of the PCR product, reusing and relabeling them to represent Western blot data for unrelated experiments in seventeen (17) figures included in four (4) published papers and twelve (12) figures included in her Ph.D. Thesis. In the absence of original reliable image data, the quantitative data in associated plots, statistical analyses, and related text also are falsified and/or fabricated. Specifically, Respondent falsified and/or fabricated the following figures included in:

- *AJRCCM* 2008
 - by reusing sets of repeating blot band images from unknown and/or differently labeled film images to falsely create Western Blot panels of:
 - GAPDH in Figure 1C, also included as Figure 2-4B in the Ph.D. Thesis
 - GAPDH, DJ-1 and KEAP1 in Figure 2B, also included as Figure 2-4C in the Ph.D. Thesis
 - GAPDH in Figure 5D, also included as Figure 2-7A in the Ph.D. Thesis
 - DJ-1, NRF2, NQO1, and GAPDH in Figure 6B, also included as Figure 2-8B in the Ph.D. Thesis
- *AJRCCM* 2009
 - by trimming Western blot panel representing samples from:
 - human subjects in Figure 4C and in the Ph.D. Thesis, Figure 3-7C, right column, Figure 3-7G, right column, and Figure 3-8A, right column, GAPDH lanes 1-4, and reusing them to represent samples from mice in Figure 3A and in the Ph.D. Thesis, Figure 3-6A

- normal human subjects in Figures 4C and 5A, left column, and in the Ph.D. Thesis, Figures 3-7C and 3-8A, left column, and reusing them after flipping horizontally and vertically as lanes 12-18 in the same GAPDH panel in the same figures to represent samples from COPD patients
- *JCI* 2011
 - by trimming Western blot panels from:
 - Figure 2D, reusing and relabeling in Figure 4A to represent different samples
 - Supplemental Figure 1A, reusing and relabeling in Figure 4A to represent different samples
 - Figure 3F, reusing and relabeling Figure 3B, bottom panel, in *PloS Comp Biol.* 2012
 - Figure 9B and the Ph.D. Thesis Figure 4-9H, bottom panel, lanes 1-5, and reusing them in Figure 4-8C, lanes 4-8, in the Ph.D. Thesis, to represent different samples
 - Figure 9B and the Ph.D. Thesis, Figure 4-9H, middle panel, lanes 1-3, and reusing them in Figure 4-8C, middle panel, lanes 2-4, in the Ph.D. Thesis, to represent different samples

- Figure 9D and the Ph.D. Thesis, Figure 4-9I, top panel, lanes 1-4, and reusing them after flipping horizontally in Figure 4-8C, top panel, lanes 1-4, in the Ph.D. Thesis, to represent different samples
- by trimming negative DNA gel images from:
 - Figure 2A, reversing and reusing the positive image as Western blot images in:
 - Figure 3B
 - Supplemental Figure 3A
 - Figure 3G, reversing and reusing the positive image as Western blots in different panels in Figure 3B in *PloS Comp Biol.* 2012

Dr. Malhotra entered into a Voluntary Exclusion Agreement (Agreement) and agreed for a period of four (4) years, beginning on October 1, 2019:

- (1) to exclude herself voluntarily from any contracting or subcontracting with any agency of the United States Government and from eligibility for or involvement in nonprocurement programs of the United States Government referred to as “covered transactions” pursuant to HHS’ Implementation (2 C.F.R. Part 376) of OMB Guidelines to Agencies on Governmentwide Debarment and Suspension, 2 C.F.R. Part 180 (collectively the “Debarment Regulations”); and

- (2) to exclude herself voluntarily from serving in any advisory capacity to PHS including, but not limited to, service on any PHS advisory committee, board, and/or peer review committee, or as a consultant.

Elisabeth A. Handley,
Interim Director,
Office of Research Integrity.

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